IN THE CLAIMS

Please amend the claims as shown below:

1. (Currently amended) A method of making a no wash bead based assay, the method comprising:

preparing a first reagent comprising a buffer;

preparing a second reagent comprising a protein;

preparing beads of preselected size and having a coefficient of variation less than 5%, including washing the beads in the buffer to form a bead-buffer matrix and reducing the surfactancy of the beads to no more than 5% to allow antigens to attach to the beads;

adding an antigen for detecting the presence of a target species to the bead-buffer matrix such that the antigen attaches to the beads to form a bead-antigen mixture, the surfactancy of the beads facilitating attachment of the antigen thereto;

adding the first reagent buffer to the bead-antigen mixture and thereafter incubating the mixture; and

adding the second reagent to the bead-antigen mixture to reduce or eliminate non-specific binding sites.

2. (Original) A method as claimed in claim 1 wherein the first reagent is a carbonate buffer.

3. (Original) A method as claimed in claim 2 wherein the carbonate buffer has a pH in the range of 9.0 - 10.0.

4. (Original) A method as claimed in claim 3 wherein the carbonate buffer has a pH of 9.6.

5. (Original) A method as claimed in claim 1 wherein the second reagent is bovine serum albumin (BSA).

6. (Original) A method as claimed in claim 5 wherein the BSA comprises a 0.1 - 5.0% BSA in saline.

7. (Original) A method as claimed in claim 6 wherein the BSA is a 0.5% BSA in saline.

8. (Previously amended) A method as claimed in claim 1 wherein the size of the beads is selected from one or more of the groups consisting of 3µ latex beads, 4µ latex beads, 5µ latex beads, 6µ latex beads, 7µ latex beads, 8µ latex beads, 9µ latex beads and 10µ latex beads.

9. (Original) A method as claimed in claim 8 wherein the beads are selected so as to have a coefficient of variation not exceeding 5%.

10. (Original) A method as claimed in claim 9 wherein the beads are selected so as to have a coefficient of variation not exceeding 1.3%.

11. (Original) A method as claimed in claim 8 wherein multiple sizes of beads are selected.

12. (Previously amended) A method as claimed in claim 1 wherein the antigen added is selected from the group consisting of RnP/Sm antigen, Sm antigen, SS-A antigen, SS-B antigen, Scl-70 antigen and dsDNA antigen.

13. (Previously amended) A method as claimed in claim 1 wherein the antigens are selected from one or more of the groups consisting of histones, lipids, viral antibodies, viral antigens, bacterial antibodies, bacterial antigens, recombinant proteins, and

cellular antigens.

14. (Previously amended) A method as claimed in claim 1 wherein the surfactancy of the beads is reduced to no more than 5% in order to enhance the ability to coat the beads with antigens.

15. (Previously amended) A method as claimed in claim 14 wherein the surfactancy is no more than 0.5% of the beads.

16. (Original) A method as claimed in claim 1 wherein the bead-based assay is prepared in a flat-bottom container.

17. (Original) A method as claimed in claim 1 wherein the bead-buffer matrix is subjected to at least one prewashing step.

18. (Original) A method as claimed in claim 1 further comprising the step of centrifuging the bead-buffer matrix and the bead-antigen mixture, and the resuspension thereof.

19. (Original) A method as claimed in claim 1 further comprising the step of vortexing the bead-buffer matrix and the bead-antigen mixture, and the resuspension thereof.

20. (Withdrawn)

21. (Withdrawn)

22. (Withdrawn)

23. (Withdrawn)

24. (Withdrawn)

25. (Withdrawn)

26. (Original) A no wash bead based assay for testing for the presence of a target substance, the assay being prepared according to the method of claim 1.

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